

REMARKS

Applicants thank the Examiner for the thorough examination of the application. Claims 1-19 are pending. Claims 6-18 are withdrawn from consideration. Claim 1 is independent and is amended. Reconsideration of the present application, as amended, is respectfully requested.

Drawings

Applicants have not received a Notice of Draftsperson's Patent Drawing Review, Form PTO-948, indicating whether the formal drawings have been approved by the Official Draftsperson. It is respectfully submitted that the drawings comply with USPTO requirements. Clarification with the next official communication is respectfully requested.

Rejection under 35 U.S.C. §103(a)

Claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,121,947 to Furuhashi et al. in view of U.S. Patent No. 5,739,887 to Ueda et al. and further in view of U.S. Patent No. 5,532,935 to Ninomiya et al. Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Furuhashi et al. in view of Ueda et al. and Ninomiya et al., and further in view of U.S. Patent No. 6,535,985 to Oshima et al. This rejection is respectfully traversed.

While not conceding the appropriateness of the rejection, but merely to advance prosecution of the instant application, claim 1 is amended to recite a

liquid crystal monitor drive apparatus for driving a liquid crystal panel having a combination of elements, including “a scaler for scaling the definition and timing of the digital graphic data by adjusting the timing of the graphic data based on the clock signal and adjusting the horizontal and vertical synchronous signals from the connector to match with a timing of the liquid crystal panel” and “a timing controller arranged to drive the liquid crystal panel based on the scaled digital graphic data, the adjusted clock signal, and the adjusted horizontal and vertical synchronous signals from the scaler.”

It is respectfully submitted that the combination of elements set forth in independent claim 1 is not disclosed or rendered obvious by the art of record, including Furuhashi et al., Ueda et al., Ninomiya et al. or Oshima et al.

In contrast to Applicants' claimed invention, Furuhashi et al. merely shows an LCD control device including a personal computer 101, which outputs an analog video signal 102 to A/D converter 104, a resolution judgment circuit 107, a gate circuit 109, a frame memory 110, a line memory 111, a frame/line memory control circuit 112, an enlargement processing control circuit 118, and a display timing generating circuit 120, as shown in FIG. 1. The resolution judgment circuit 107 judges the resolution of the video signal 102 on the basis of a horizontal/vertical synchronous signal 103, and outputs the judgment result 108 to the gate circuit 109, the frame/line memory control circuit 112 and the display timing generating circuit 120. The Office Action equates the enlargement processing control circuit

118 in Furuhashi et al. with the “scaler” in the presently claimed invention. However, the enlargement processing control circuit 118 in Furuhashi et al. merely performs enlargement processing by using frame memory read data 115 and line memory read data 116 without adjusting the timing of digital graphic data or adjusting the horizontal/vertical synchronous signal.

Furuhashi et al. does not teach or suggest “a scaler for scaling the definition and timing of the digital graphic data by adjusting the timing of the graphic data based on the clock signal and adjusting the horizontal and vertical synchronous signals from the connector to match with a timing of the liquid crystal panel” and “a timing controller arranged to drive the liquid crystal panel based on the scaled digital graphic data, the adjusted clock signal, and the adjusted horizontal and vertical synchronous signals from the scaler,” as recited in claim 1.

The Office Action relies on Ueda et al. for a teaching of combining electronic components into an integrated circuit, and relies on Ninomiya et al. for a teaching of a peripheral circuit coupled to an inverter. However, these references do not teach or suggest the above-cited limitation of claim 1 and, therefore, fail to cure the deficiencies of Furuhashi et al.

In rejecting claim 19, the Office Action relies on Oshima et al. for a teaching of a peripheral circuit operating with a frequency signal much lower than that of the clock signal. However, Oshima et al. does not teach or suggest the above-cited

limitation of claim 1, incorporated in claim 19, and therefore fails to cure the deficiencies of Furuhashi et al., Ueda et al. and Ninomiya et al.

In view of the foregoing, it is respectfully submitted that the art of record, including Furuhashi et al., Ueda et al., Ito, or Applicants' disclosed related art, fails to teach or suggest the combinations of elements set forth in independent claim 1. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested. It is believed that independent claim 1 is allowable. Since the remaining claims depend from these allowable independent claims, they are also allowable for at least the above reasons, as well as for the additional limitations provided thereby. Thus, all claims are allowable.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.


If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, she is invited to telephone Sam Bhattacharya (Reg. No. 48,107) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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